

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Currently Amended) A live recombinant *Mycobacterium bovis*-BCG strain comprising a heterologous nucleic acid capable of expression, the heterologous nucleic acid encoding at least one protein or polypeptide that exhibits alanine dehydrogenase activity, glutamine synthetase activity, or L-serine dehydratase activity.

2. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression~~ of claim 1, wherein the nucleic acid ~~encoding~~ at least one protein or polypeptide selected from the group consisting of alanine dehydrogenase [SEQ ID NO : 1 ; SEQ ID NO : 2], glutamine synthetase [SEQ ID NO : 7 to SEQ ID NO : 14] and L-serine dehydratase [SEQ ID NO : 5 ; SEQ ID NO : 6].

3. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression~~ of claim 1, wherein the nucleic acid comprises all or part of at least one nucleic acid molecule selected from the group consisting of [SEQ ID NO : 1], [SEQ ID NO : 5], [SEQ ID NO : 7], [SEQ ID NO : 9], [SEQ ID NO : 11], and [SEQ ID NO : 13].

4. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression of claim 1, wherein~~ the nucleic acid comprises a sequence having at least 60% sequence identity to at least one nucleic acid molecule selected from the group consisting of [SEQ ID NO : 1], [SEQ ID NO : 5], [SEQ ID NO : 7], [SEQ ID NO : 9], [SEQ ID NO : 11] and [SEQ ID NO : 13].

5. (Currently Amended) The live recombinant *Mycobacterium bovis*-BCG strain of claim 3, wherein the nucleic acid molecule has undergone modification.

6. (Currently Amended) The live recombinant *Mycobacterium bovis*-BCG strain of claim 1, wherein the *Mycobacterium bovis*-BCG~~MYCOBACTERIUM BOVIS-BCG~~ strain is selected from the group consisting of *Mycobacterium bovis*-BCG-Russia, *Mycobacterium bovis*-BCG-Moreau, *Mycobacterium bovis*-BCG-Japan, *Mycobacterium bovis*-BCG-Sweden, *Mycobacterium bovis*-BCG-Birkhaug, *Mycobacterium bovis*-BCG-Prague, *Mycobacterium bovis*-BCG-Glaxo, *Mycobacterium bovis*-BCG-Denmark, *Mycobacterium bovis*-BCG-Tice, *Mycobacterium bovis*-BCG-Frappier, *Mycobacterium bovis*-BCG-Connaught, *Mycobacterium bovis*-BCG-Phipps, and *Mycobacterium bovis*-BCG-Pasteur.

7. (Previously Presented) A pharmaceutical composition comprising the live recombinant *Mycobacterium bovis*- BCG strain of claim 1.

8. (Currently Amended) A vaccine or immunogenic composition for treatment or prophylaxis of a mammal against challenge by Mycobacterium tuberculosis or Mycobacterium bovis ~~mycobacteria~~ comprising the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

9. (Cancelled).

10. (Previously Presented) The vaccine or immunogenic composition of claim 8 further comprising a pharmaceutically acceptable carrier.

11. (Previously Presented) The vaccine or immunogenic composition of claim 8 further comprising an adjuvant.

12. (Currently Amended) The vaccine or immunogenic composition of claim 8, further comprising immunogenic materials from one or more other pathogens.

13. (Previously Presented) A method for treatment or prophylaxis of a mammal against challenge by *Mycobacterium tuberculosis* or *Mycobacterium bovis* comprising administering to the mammal the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

14. (Currently Amended) The method of claim 13, wherein the mammal is a cow.

15. (Currently Amended) The method of claim 13, wherein the mammal is a human.

16. (Currently Amended) The method of claim 13, wherein the vaccine or immunogenic composition is administered in the presence of an adjuvant.

17. (Previously Presented) A method for treatment or prophylaxis of a mammal against cancer comprising administering to the mammal the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

18. (Currently Amended) The method of claim 17, wherein the vaccine or immunogenic composition is administered in the presence of an adjuvant.

19. (Currently Amended) The method of claim 17, wherein the cancer is bladder cancer.

20. (Previously Presented) A test kit comprising the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

21. (Currently Amended) A ~~media~~-medium composition for inhibiting the growth of *Mycobacterium bovis*-BCG comprising alanine or serine as the only nitrogen source for growth.

22. (Cancelled).

23. (Currently Amended) The ~~media~~medium composition of claim 21, further comprising:

- (a) a carbon source;
- (b) iron;
- (c) magnesium; and
- (d) S04.

24. (Currently Amended) A ~~media~~medium composition of claim 23, wherein the carbon source is selected from the group consisting of glycerol, dextrose, citrate and glucose.

25. (Currently Amended) A method for inhibiting the growth of *Mycobacterium bovis*-BCG comprising:

- (a) obtaining a sample comprising *Mycobacterium bovis*-BCG ; and
- (b) culturing the sample in a selective ~~media~~medium.

26. (Currently Amended) The method of claim 25, wherein the selective ~~media~~medium comprises alanine as the only nitrogen source for growth.

27. (Currently Amended) The method of claim 25, wherein the selective ~~media~~medium comprises serine as the only nitrogen source for growth.

28. (Currently Amended) A method of culturing *Mycobacterium bovis*-BCG comprising:

(a) obtaining a sample of *Mycobacterium* *bovis*-BCG; and

(b) culturing the sample in differential-~~media~~ medium.

29. (Currently Amended) The method of claim 28, wherein the differential ~~media~~-medium comprises histidine.

30. (New) The live recombinant *Mycobacterium bovis*-BCG strain of claim 4, wherein the nucleic acid molecule has undergone modification.